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The Moderating Effect on Purchasing Intention in the Health Food Industry

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The principal objective of this study was to investigate the consumers' purchase experience and analyze the relationship between consumer perceived value and purchase intention. Data were collected from 356 individuals with a wide experience of purchasing health food products. The data were analyzed using AMOS 18 software. Our findings demonstrated that perceived product attributes have positive and significant effect on consumer purchase intention. Consumer perceived value has a positive and significant effect on the consumer purchase intention. Additionally, consumer perceived value moderates the causal relationship between products perceived attributes and consumer purchase intention. To facilitate consumers' positive consumption motivation, the causes of negative emotional effects created by hygiene factors must be eliminated. Motivator factors, particularly the positive and moderating effect of consumer perceived value on purchase intention, are the key to increase intention to purchase and satisfaction. From a long-term perspective, the hygiene factors must be satisfied for staying in competency and keeping customers.

Keywords: Product perceived attributes, perceived value, two factor theory, purchase intention, health food

JEL: L66, M31

Along with the booming global economy, flourishing biotechnologies, and thriving health care applications, disposable income of people has increased. In addition, changes in consumers' lifestyles and job types have resulted in consumers preferring convenient and nutritional health food that meets their nutritional needs, improves their bodily functions, and prevents lifestyle diseases. The World Health Organization (WHO, 2015) has estimated that 1.2 billion people will be over 60 years of age by 2025, which doubles the figure estimated in 2006, whereas, the Taiwan's Department of Statistics (2014) estimated that Taiwan will become an aged society and a hyper-aged society in 2018 and 2025, respectively. These predictions demonstrate the increasingly serious problem of population aging in Taiwan. Meanwhile, some developed countries have already become aged societies, and as average life expectancy is increasing, people are no

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longer adopting a passive approach to stay healthy through illness prevention, instead taking a proactive approach by positively maintaining their health and physique. Consuming health food has become one of the principal methods for busy consumers to pursue health (Doyon and Labrecque, 2008), and increased health awareness has augmented the global market for health food from US$155.9 billion in 2007 to US$243.4 billion in 2015 (Global Industry Analysts, 2016).

Consumers use health food to improve their bodily functions. In contrast with drugs, which may cause side effects, most consumers consume health food because of their lacking health or their need for the food. In addition, they believe that persistent use of health food will yield the desired health benefits (Childs and Poryzees, 1998). When purchasing health food, which exposes consumers to more factors of uncertainty, consumers want health food manufacturers to provide subjective and objective messages guaranteeing product quality or performance. With combination of all explicit features (like price etc.), intrinsic features (like flavor etc.) and properties of the product, the product perceived attributes can be perceived by the consumers objectively. The product perceived attributes are the basic and necessary information about the product (Richardson *et al*., 1994). Efforts to endorse products subsequently shape consumers' perceived value of the products (Roselius, 1971), increasing their purchase intention (Yeung and Morris, 2001).

Most existing health food marketing-related studies have focused on investigating organizations' performance at managing marketing channels (Yeung and Morris, 2001) or have employed merely one set of attribute factors to explore consumer's purchase motivation during the "demand confirmation stage". Few studies have adopted a customer-oriented perspective to examine consumers' consumption motivation during the "assessment stage". Unlike general food, health food is generally consumed not for its pleasurable taste but rather its uniqueness and functionality in maintaining health. The value and demand for health food are specific. Therefore, in health food-based consumer behavior studies, investigating factors that affect consumers' perceived value of a product (an internal variable) and a product's perceived attributes (an external variable) become particularly critical (Childs and Poryzees, 1998). In this study, two-factor theory was used to evaluate the participants' consumption motivation during the assessment stage as well as clarifying their hygiene and motivator factors.

Traditional motivation hypotheses focus on using hygiene factors to boost consumption motivation. However, by merely satisfying the hygiene factors of health food, it may have the dissatisfaction and negative consumption motivation be eliminated but does not mean that the feelings of satisfaction and positive consumption motivation can be evoked. The aforementioned satisfaction of the hygiene factors is just a neutral feeling of being neither satisfied nor dissatisfied. This study makes some novel contributions to our current understanding of consumers' purchasing intention. On the basis of this logical linkage, we attempt to determinate whether the product perceived attributes can influence purchasing intention. Further, we attempt to evaluate the relationship between the product perceived attributes and purchasing intention in accordance with the levels of perceived value. We applied each theoretical framework to formulate research model. In this study, two-factor theory was applied to evaluate the participants' consumption motivation during the assessment stage as well as clarify their hygiene and motivator factors, combined with a literature review of marketing and consumer behavior-related studies, it transcended its original domain of application and verified the positive moderating effects of motivator factors on hygiene factors.

LITERATURE REVIEW

Health Food

The legal definition and concept of health food were introduced by Japan in 1962. The Ministry of Health, Labor, and Wealth formulated labeling regulations for foods for specified health use in 1991, in which these foods were classified in four categories (food for special dietary uses, food for specified health uses, food with nutrient function claims, and general food) in the Nutrition Improvement Law. "Food for specified health uses" is defined as food taken in daily life for specific health purposes and that improve bodily functions or have special health effects (National Institutes of Health, 1994). Health food must pass safety and health effect assessment tests with scientific evidence; be proven to be harmless to the human body; and contain ingredients that match health food specifications set by the central competent authority (Debasis, 2008). Health food can be thought of as general food with drug-like benefits; it serves as functional food or nutritional supplement and has effects of preventing diseases and maintaining health. In this study, health food is defined as food that is suitable for consumers with specific health needs, that has the ability to

regulate body functions, and that is not used to treat diseases (Childs and Poryzees, 1998).

Two-Factor Theory

The two-factor theory (Herzberg, 1968) divides behavioral motivation into hygiene factors and motivator factors according to empirical data. Hygiene factors are factors that do not lead to higher motivation, even though dissatisfaction results from their absence. When discussing general products, hygiene factors are external factors whereas motivator factors are internal factors. Motivator factors, also called satisfaction factors, are factors that motivate people to improve and take actions to realize their goals. The biggest dissimilarity between Herzberg's two-factor theory and traditional motivation theories is that the former contends that human motivation and satisfaction are governed by two groups of factors, not one, and that satisfaction and dissatisfaction do not coexist in a single continuum but rather in two separate continuums. The two-continuum concept indicates that a person can experience feelings of both satisfaction and dissatisfaction, simultaneously. In this study, consumers' purchase intention when purchasing health food products was investigated. Following literature review, this study adopted product perceived attributes as a hygiene factor and consumer perceived value as a motivator factor. In other words, when consumers assessed whether to purchase health food, the absence of hygiene factors induced consumer dissatisfaction and negative purchase motivation; however, the presence of the hygiene factors did not necessarily stimulate positive motivation. By contrast, the presence of motivator factors stimulated their positive motivation and enhanced their purchase intention.

Product Perceived Attributes

With combination of all explicit features (like price etc.), intrinsic features (like flavor etc.) and properties of the product, the product perceived attributes can be perceived by the consumers objectively. The product perceived attributes are the basic and necessary information about product (Richardson *et al.*, 1994). Consumers consider all products as a combination of attributes (Aaker, 1991; Kotler, 1997; Stanton and Etzel, 1991). These product attributes bring benefits to consumers, including functional, experiential, and symbolic benefits (Aaker, 1995). Companies provide product attributes affecting consumers' attitude toward the products (Levy and Weitz, 2004), same as the effect of hygiene factor. When evaluating their product

needs, consumers do not consider all product attributes but rather select a number of attributes from the attributes set. Some of these attributes refer to objective data, whereas other attributes are abstract or are based on subjective feelings. Almost all products have multiple attributes. Nevertheless, only a fraction of a product's attributes is generally evaluated by consumers because consumers assess only a product's perceived attributes when determining whether to make purchase in addition to considering their needs (Reynolds and Wells, 1977). To consumers, perceived product attributes are hygiene factors (external factors); the absence of these basic attributes causes consumer dissatisfaction and negative attitude. Accordingly, H_1 was posited:

H_1: Perceived product attributes have a significant and positive effect on consumer purchase intention.

Perceived Value

Perceived value is a compromise between "giving" and "taking" (Dodds *et al.*, 1991). Perception is a psychological process of selecting, organizing, and interpreting information (Kardes *et al.*, 2011). Perceived value also involves making an overall internal assessment in which a choice between perceived interests and perceived sacrifices is made (Engle *et al.*, 1994). This assessed utility, or transaction utility, is a product's perceived value (Thaler, 1985); transaction utility thus significantly and positively affects consumer choice and intention (Zeithaml, 1988; Zeithaml and Bitner, 2000). Therefore, perceived value is a kind of motivator factors that elicits positive emotions in consumers, increases their purchase intention, and results in higher satisfaction (Teas and Agarwal, 2000). Accordingly, H_2 was proposed:

H_2: Consumer perceived value has a significant and positive effect on purchase intention.

Moderating Role of Perceived Value

Purchase intention indicates consumers' willingness to purchase products (Dodds *et al.*, 1991). In the context of a purchasing process, purchase intention is consumers' degree of preference for a product between the time that they make a purchase evaluation to the time that they actual purchase the item. Thus, purchase intention can be used to predict consumers' subjective tendency to engage in purchase behavior (Fishbein and Ajzen, 1975).

Perceived value reflects consumers' reaction to motivation. Previous studies have generally combined perceived value with other variables to form mediating variables (Zeithaml, 1988; Zeithaml and Bitner, 2000). Consumers' consumption intention is shaped by their assessment of the product, attitude toward the brand, and various external factors (Schiffman and Kanuk, 2007). Once consumers have carefully evaluated a product and chosen the product, they develop an intention to purchase the products (Kardes *et al.*, 2011). Thus, purchase intention is normally created when purchase motivation matches hygiene factors including product characteristics and product features (Kardes *et al.*, 2011). As stated, consumers' purchase intention is formed by their assessments of related products, attitude toward brands, and their exposure to other motivator factors (internal factors). Accordingly, H_3 was proposed:

H_3: Consumer perceived value moderates the causal relationship between perceived product attributes and consumer purchase intention.

The conceptual model employed in this study is presented in Figure 1.

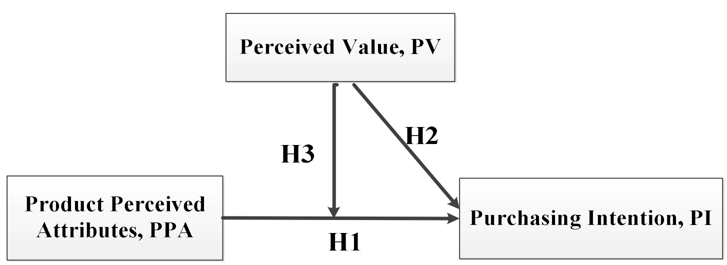

Figure 1. The Conceptual Model

METHODOLOGY

Research Design

Literature shows that Muijs's (2011) comprehensive work is useful to understand participants' consumption motivation in health food industry. Data collection was based on Sedgwick (2014) i.e. a cross-sectional design, data from the sample were obtained at a single point of time,

typically collected from multiple groups or types of people. Cross-sectional studies are generally quick, easy, and less expensive to conduct and often based on a soft or hardcopy questionnaire survey. To analyze the data, we conducted Structural Equation Modeling (SEM) by using AMOS V.18 software.

Sample and Data Collection

A part of population called sample may estimate something about the whole population (Battaglia, 2011). The purposive sampling was applied to determine the respondents following the selection criteria i.e. the respondents must have self-health awareness and willingness to select with more nutritional values to meet their health needs rather than traditional food. An online survey was used to tap responses. The descriptive advantages of the online survey are following: first, study subjects can respond and complete the questionnaire anytime and anywhere. Second, the online survey can efficiently save research cost by transforming paper format into an electronic medium (Yun and Trumbo, 2000). Third, online survey provides opportunity to give a range of answers. Fourth, online survey is easier to access particular population's interests, attitudes and values (Wright, 2005). The online survey provides researchers to collect data with a convenient way. Besides, participants can easily get the online web links and fill the questionnaire. The survey was sent to subjects and gotten back May 1 to June 30 of year 2014. A total of 496 questionnaires were distributed and 356 were received back, with a response rate of 72 percent.

Questionnaire Development

The questionnaire was designed by keeping two main objectives in mind. First, to maximize the proportion of subjects answering the questionnaire; second, to obtain accurate information for the survey (Leung, 2001). The questionnaire consisted of four sections. The first section addressed the demographic variables of the consumers, including age, gender, education level, occupation, and income. The second section involved consumers' product perceived attribute (three items). The items were based on the literature (Aaker, 1991; Kotler, 1997; Stanton and Etzel, 1991). The terminology of the attributes was modified. The third section involved consumers' perceived

value (three items). The items were based on the literature (Zeithaml, 1988; Teas and Agarwal, 2000). The fourth section involved consumers' purchase intention (three items). The items were based on the literature (Kardes *et al.*, 2011). In regard to the second section and third section of questionnaire, the product perceived attributes reflect the basic and necessary information about product (Richardson *et al.*, 1994). Therefore, it was reasonable to combine the definition of product perceived attribute and hygiene-factors in items' statement. All survey items were measured on a 7-point Likert scale, except for the demographic characteristics.

Data Analysis

Each scale was first investigated using confirmatory factor analysis (CFA) to test the reliability and validity of the latent variables. The descriptive statistics for each scale included sex, age, education background, annual income, and job. A measurement model using LISREL with maximum likelihood estimation was used to estimate fitness and to test causality among the variables. A multi-group comparison of structural equation modeling was applied to test the moderating variable of this study (Jöreskog and Sörbom, 1996).

RESULTS

Sample Characteristics

A total of 356 responses were received back via online platform in Taiwan. Descriptive statistics showed that 59.4 percent of the respondents were female and 40.6 percent were male. The majority of the respondents lied between the ages of 30 and 39 (28.8%). In descending order, the other age groups were as follows: ages 20-29 years (16.1%), ages 40-49 years (23.1%), ages 50-59 years (22.7%), below age 15 years (1%), and over age 60 years (8.3%). Additionally, the educational background of respondents was the following: college level (76.9%), high school (6.2%), junior high school or lower (1.6%) and Master's degree or higher (15.3%). The main professions of the respondents were the following: service industry (30.8%) and the financial industry (24.2%), followed by primary industry (Agriculture, forestry, fishing, animal husbandry)

(13%), military, civil service, and education sector (12.2%), manufacturing industry (10%) and commerce (9.8%).

Measurement Model

Next, rigorous structural equation modeling was employed to perform statistical analyses and tests on the measurement and structural models. Target coefficients were then selected as the evaluation criteria, in which the first-order dimensions of the study model, namely, perceived product attributes and consumer perceived value, were replaced with multiple-order dimensions (Marsh and Hocevar, 1985). A confirmatory factor analysis was performed on the various dimensions to ensure questionnaire reliability and validity. In the reliability analysis, all observed variables were required to have a factor loading (Hair *et al.*,1992) and squared multiple correlation (SMC) greater than .5 (Bagozzi and Yi, 1988). In the convergent validity analysis, the reliability, composite reliability, and average variance extracted (AVE) of each individual item was considered (Hair *et al.*, 1998), as shown in Table 1 (see Appendix-I). In the discriminate validity analysis, the square root of the average variance extracted (SQAVE) was required to be greater than the correlation coefficients of other dimensions (Hair *et al.*, 1998), as indicated in Table 2.

Research Construct	Product Perceived Attributes (PPA)	Perceived Value (PV)	Purchasing Intention (PI)
Product Perceived Attributes (PPA)	.73		
Perceived Value (PV)	.62	.86	
Purchasing Intention (PI)	.68	.71	.79

Table 2. Discriminate Validity Analysis

NOTE:
1. The value of the diagonal elements (the part of shadow): AVE square root.
2. Off-diagonal elements: The correlations among the constructs.
3. Distinguish the discriminant validity: The value of the diagonal elements should be larger than the off-diagonal element.

Structural Model

Results demonstrated that all of the path coefficients of the model achieved statistical significance ($p < .05$), supporting H_1 and H_2. All the observed variables demonstrated a squared

multiple correlation equal to or greater than .60, indicating that the model explained the latent variables adequately (Figure 2.).

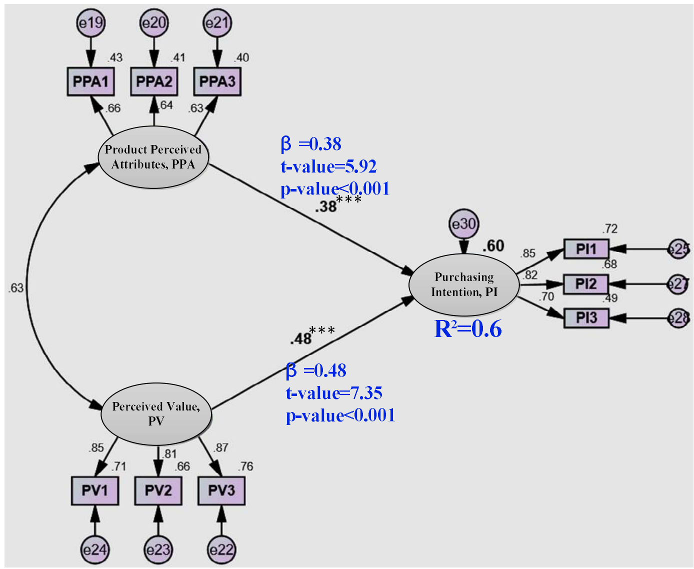

Figure 2. Structural Model Testing

To ensure that the proposed model exhibited favorable external quality, assessments were made to determine the fitness of the overall model with the observed data, and the empirical results were discovered to match that of the theoretical model (Table 3, see Appendix-II).

Testing the Moderating Effects of Perceived Value

Testing H_3 involved examining whether perceived value exerts a moderating effect on the relationship between product perceived attributes and purchase intentions. In other words, high perceived value decreases the relationship (β) between products perceived attributes and purchase intentions, whereas low perceived value increases the relationship (β) between products perceived attributes and purchase intentions. Perceived value exhibits a strong moderating effect on the relationship between products perceived attributes and purchase intentions. To test this hypothesis, we used a multi-group comparison of structural equation modeling as suggested by Jöreskog and Sörbom (1989). The *K*-means method was used for

clustering based on the respondents' average perceived value scores to divide the respondents into two groups: a low-perceived value group (n = 129) and a high-perceived value group (n = 227). The centroid scores of the low and high-perceived value group were 4.05 and 5.71, respectively. In addition, we also used an independent t-test to compare the high and low-perceived value groups to verify that significant differences exist between the two groups. The results indicated that the average of the high-perceived value group (5.71) was significantly higher than that of the low-perceived value group (4.05; t = 24.76, p < .001), indicating a significant difference. Based on these results, we subsequently compared the causal relationship between products perceived attributes and purchase intentions to determine whether the high and low-perceived value groups differed significantly. Prior to testing the path invariance of the moderating effects, we were required to determine whether the goodness-of-fit indicators of the high and low-perceived value groups reached acceptable levels. The fit of the high-perceived value group was χ^2/df = 1.85, GFI = .95, CFI = .95, NFI = .90, NNFI = .89, IFI = .95, SRMR = .053, and RMR = .037. The correlation coefficient between the products perceived attributes of the high-perceived value group and purchase intentions was .65. The fit of the low-perceived value group was χ^2/df = 3.15, GFI = .90, CFI = .84, NFI = .87, NNFI = .84, IFI = .85, SRMR = .081, and RMR = .088. The correlation coefficient between the products perceived attributes of the low-perceived value group and purchase intentions was .60. Table 4 shows related result indicating that the fit for the high and low-perceived value groups was satisfactory. Therefore, we continued to the next stage, which was the path invariance test.

In the path invariance test, the path coefficient of the moderating effect is assumed to contain no invariance to obtain a chi-square value and its corresponding degrees of freedom value. This is known as the baseline model, which can be subsequently applied to models of various samples. A constraint is then added so that the path coefficients of the high and low groups equaled. Another χ^2 value and corresponding df value can be obtained by re-estimating the model. This is referred to as the moderating model. The χ^2 value of the baseline model is subtracted from

	Product Perceived Attributes→ Purchase Intention	χ^2/df	GFI	CFI	NFI	NNFI	IFI	SRMR
Overall Sample	.24**	4.36	.90	.90	.90	.86	.90	.088
High-Perceived Value Group	.33***	1.85	.95	.95	.90	.89	.95	.053
Low-Perceived Value Group	.42***	3.15	.90	.84	.87	.84	.85	.081

**p <.01; ***p <.001

Table 4. Fitness Assessment of the Overall Sample and the High- and Low-Perceived Value Groups

the χ^2 value of the moderating model to obtain a chi-square difference value ($\Delta\chi^2$). If the $\Delta\chi^2$ results indicate a significant influence, a moderating effect can be inferred. This is primarily because when the $\Delta\chi^2$ is significant, suggesting that the hypothesis postulating equal path coefficient cannot be accepted. At varying levels of moderating variables, the path coefficients of the same path differ significantly. Therefore, a moderating effect exists (Bollen, 1989). Table 5 shows that the χ^2 value of the baseline model in this study was 192.739 (df = 76). The χ^2 value of the moderating model was 196.682 (df = 77). The difference between the two models was 1 degree of freedom (α = .05), with a $\Delta\chi^2$ of 3.943. Therefore, the chi-square difference was significant, implying that the baseline model and the moderating model differed significantly. Therefore, consumers' perceived value significantly influenced the relationship between products perceived attributes and purchase intentions. In regard to the influence coefficient of the relationship between products perceived attributes and purchase intentions, the coefficient of the high-perceived value group (β = .33, p < .001) was lower than the coefficient of the low-perceived value group (β = .42, p < .001). Therefore, H_3 was supported.

DISCUSSION

On the basis of the empirical results of this study, we obtained few key finding from our tests of

	χ^2	*df*	$\Delta\chi^2$
Model 1: Baseline model	192.739	76	--
Model 2: Moderating model	196.682	77	3.943*

*p<.05

Table 5. Path Coefficient Invariance of the High- and Low-Perceived Value Groups

the hypotheses. In regard to the influence coefficient of the relationship between products perceived attributes and purchase intentions, the coefficient of the high-perceived value group (β = .33 p < .001) was lower than the coefficient of the low-perceived value group (β = .42 p < .001). Therefore, H_3 was supported. This result suggests that the health foods consumers should be in the inner emotional state of high perceived value. Based on the moderating effect test, the research found that satisfaction with the demands for a product' s perceived attributes are essential. If failed for satisfying demands, the marketing managers will bring consumer dissatisfaction and negative purchase motivation.

However, successfully satisfying the demands will only cause limited, short-term motivation. This finding provides guidelines to the marketing managers for further establishing a response mechanism. In general, purchase intention is normally created when purchase motivation matches hygiene factors including product characteristics and product features (Kardes *et al.*, 2011). To facilitate consumers' positive consumption motivation, the reason of negative emotional effects created by hygiene factors must be eliminated. Besides, the motivator factor-based marketing strategies must be differentiated according to the target consumers who can be satisfied. In highly business competition and the hygiene factors becoming essential requirements, companies devoted to improving motivator factors will take a considerable competitive advantage. Furthermore, the psychological motivation evoked by uniqueness, brand image, or experience-related perceived value can be further researched.

CONCLUSION

The core contribution of this study is application of the two-factor theory to demonstrate the perceived attributes and perceived value of health food products, which acted as hygiene factor and motivator, respectively. This study could fill the research gap because the most existing health food marketing-related studies focused on investigating organizations' performance at managing marketing channels (Yeung and Morris, 2001) or employed merely one set of attribute factors to explore consumer' purchase motivation during the demand confirmation stage. Rare studies applied a customer-oriented perspective to explore consumers' consumption motivation during the assessment stage. On the basis of the empirical results of this study, we obtained several key findings from our tests of hypotheses. First, perceived product attributes have a significant and positive effect on consumer purchase intention. Second, consumer perceived value has a significant and positive effect on the consumer purchase intention. Third, consumer perceived value significantly moderates the causal relationship between product's perceived attributes and consumer purchase intention. The aforementioned finding may provide to marketing managers for external stimulation. Based on the findings of this study, the satisfying demands for a product's perceived attributes are essential. However, our results demonstrated that consumers with successfully satisfying the aforementioned demands will only cause limited, short-term purchasing motivation. To facilitate consumers' positive consumption motivation, the reason of negative emotional effects created by hygiene factors must be eliminated. Traditional motivation hypotheses focus on using hygiene factors to boost consumption motivation. On the basis of our results, we believe that motivator factors, particularly the positive and moderating effect of consumer perceived value on purchase intention as the key factors in purchasing and developing a satisfaction toward. Additionally, from a long-term perspective, that hygiene factors must be satisfied for staying in competency and retaining customers. On the other hand, only by creating motivator factors, such as internal factors, and utilizing the moderating effect of customer perceived value can improve continuously positive consumption motivation and actual purchase intention.

The two-factor theory, which was originally developed to assess the relationship between work motivation and work performance in the workplace, was applied to investigate consumers' health food consumption motivation. Some behavioral science scholars asserted that consumers from varying occupations or social status may express the dissimilar or overlapping positive emotional reactions toward motivator and hygiene factors. Additionally, the divergence in their emotional reactions is determined by their environment and psychological state.

IMPLICATIONS

The two-factor theory can be used to favorably explain the complex consumption motivation of health food. The theory posits that concerning customer satisfaction, hygiene factors are consumers' demands on the external aspects of health food, whereas, motivator factors induce positive emotional connections between consumers and health food. Satisfying consumers' external demands eliminates their negative motivation and stimulates their external motivation, indirectly satisfying their consumption motivation. By contrast, by satisfying consumers' emotional connections with products, consumers' internal motivation is elicited, directly satisfying their consumption motivation. With combination of all explicit (like price etc.), intrinsic features (like flavor etc.) and properties of the product, the product perceived attributes can be perceived by the consumers objectively. The product perceived attributes are the basic and necessary information about product (Richardson *et al.*, 1994). Therefore, it is reasonable to combine the definition of product perceived attribute and hygiene-factor in items' statement. That's same case in regard to the perceived value and motivator. In this study, the two-factor theory was used in a different domain and, when combined with a literature review of marketing and consumer behavior-related studies, it transcended its original domain of application and verified the positive moderating effects of motivator factors on hygiene factors. The principal conclusion was thus that the marketing managers can create and maintain positive health food consumption motivation by enabling consumers' emotional connections with their products.

Traditional motivation hypotheses focus on using hygiene factors to boost consumption motivation. Consumers have specific demands for health food because of its ability to improve health. However, by merely satisfying the hygiene factors of health food, only dissatisfaction and negative consumption motivation can be eliminated and feelings of satisfaction and positive consumption motivation cannot be evoked, engendering a neutral feeling of being neither satisfied nor dissatisfied. Drucker (1973) mentioned that the purpose of a company's existence is to create satisfied customers and maintain their satisfaction. Based on the moderator effect test, the perceived value plays the role of motivator inferred from two-factor theory. Thus, satisfying customers should be the foundation of company operations, and on this basis, a balance between the public interests of society and the private interests of the company can be achieved. Thus, marketing and company managers must recognize that hygiene factors must be satisfied to stay competitive. Only by creating motivator factors (internal factors) and utilizing the moderating effect of customer perceived value can increase positive consumption motivation and actual purchase intention be improved continuously.

LIMITATIONS AND FUTURE DIRECTIONS

The scope of this study is limited to a specific demographic structure and lifestyle. In addition, the sample belongs to a gradually aging society with busy schedule. For other countries with different demographic characteristics, economic and lifestyle patterns are still required to conduct further research. Many studies explored consumer behavior, which has specific functional requirements for health food, but rarely applied cross-domain framework to explore the two-factor theory of individual work motivation. Therefore, the generalized explanatory power of the conceptual model of this study may be limited, and could be more extensive and in-depth in future research. However, individuals, whether they are working or consuming decisions, need to be motivated, so the challenge to this study is still optimistic.

Several avenues exist for future studies to extend the present study. First, other cross-

sectional studies can be performed in different regions and with more participants in order to discover new key factors. However, the result of quantitative research would have probably limited contribution compared to qualitative research. Further studies could be performed as well to combine close-ended and open-ended questionnaire because it helps to get more insights and open more discussions which could establish our conceptual model progressively.

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Appendix-I

Research Construct	Observed Variable	Factor Loading (λ)>0.5 (Hair *et al.*, 1992)	Squared Multiple Correlation (SMC)>0.5 (Bagozzi & Yi, 1988)	Composite Reliability (CR)>0.7 (Hair *et al.*, 1998)	Average Variance Extracted (AVE)>0.5 (Fornell & Larcker, 1981)
Product Perceived Attributes (PPA)	PPA1: The price of health food with reasonable is basic and necessary information.	0.71	0.51	0.77	0.52
	PPA2: The flavor of health food with acceptable is basic and necessary information.	0.71	0.51		
	PPA3: It is essential and necessary to purchase health foods to present personal lifestyles.	0.73	0.53		
Perceived Value (PV)	PV1: Eating health foods can make me feel healthier.	0.84	0.72	0.89	0.73
	PV2: Buying health foods allows me to get social recognition.	0.82	0.67		
	PV3: I feel right about the decision to buy health foods.	0.89	0.8		
Purchasing Intention (PI)	PI1: I am willing to buy health foods to maintain health.	0.84	0.7	0.83	0.62
	PI2: I recommend that others to buy health foods	0.72	0.5		
	PI3: I am willing to pay more for health foods than for normal foods.	0.82	0.65		

Table 1. Reliability and Convergent Validity Analysis

Appendix-II

Model Fit Index	Ideal	Scholars	This Study
χ^2	The Smaller, the Better	Joreskog & Sorbom (1996)	**102.6**
d.f. ratio	--	--	**30**
χ^2 / d.f. ratio	<5	Wheaton (1987)；Bollen (1989)；Hair *et al*. (1998)	**3.43**
GFI	>0.9	Gefen *et al*. (2000)；Hair *et al*. (1998)	**0.95**
AGFI	>0.8	Gefen *et al*. (2000)；Hair *et al*. (1998) Joreskog & Sorbom (1996)	**0.92**
SRMR	<0.1	Hu & Benteler (1999)	**0.07**
CFI	>0.9	Gefen *et al*. (2000)；Hair *et al*. (1998)；Bagozzi & Yi (1988)	**0.96**
RMSEA	≤0.08	Browne & Cudek (1993)；Jarvenpaa *et al*. (2000)	**0.08**
NFI	>0.9	Bentler & Bonett (1980)	**0.94**
NNFI	>0.9	Bentler & Bonett (1980)；Tucker & Lewis (1973)	**0.95**
IFI	>0.9	Bentler & Bonett (1980)	**0.96**

Table 3. Overall Model Fit Index

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Medical Employees' Core Competency: Application of Two-Stage Clustering

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In 2005, the Taiwanese government has drawn up The Talent Quality-management System (TTQS) for businesses and medical units to carry out internal human training by offering a sound education and training evaluating system. Hospital executives are more aware of the need to improve the competitiveness of clinical staff and realize that a patient-centered healthcare model requires continuous innovation and quality improvement to enhance the competitiveness of hospitals. Using two-stage clustering (Self-Organization Maps and K-means), this research identified different types of departments–including physicians, medical staff, and administrators and discussed the respective core competency of the different groups. The study result showed the importance of conveying the core competency to the various departments and units in hospitals. Based on analyses we found that hospital staff's core competency identification is essential to help construct a human resources system, serving as a reference for hospitals and corporations in the selection, education, utilization, and retention of talents, as well as a practical benchmark for core competency applicable in the human resource management of hospitals and corporations.

Keywords: Core competency, K-means, self-organization maps (SOM), Two-stage clustering, The Talent Quality-management System (TTQS)

JEL: I11, L15

In the last two decades, the global competition has been fierce in medical industry. Among other factors, the core competency of enterprises also lies in the quality of qualified personnel, which shows the strategic importance of human resource (Zhang, 2003). Facing the economic recession, enterprises should think optimistically on how to cope with the global competition and to be more competitive to intelligently respond to the economic fluctuations which could reduce many labor-related expenses and enterprise costs. It is a crucial issue for enterprises to find out how to make human resource grow and to create an emerging future. Human capital is one of the most important factors of production and the key to win the competition. Enterprises need to invest in the human resource, plan and train their employees, and establish a sound

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education and training system to foster the organization’ s required manpower. The Taiwanese government has, based on the concept of the UK’ s Investors in People (IIP), and the Swiss ISO10015, introduced The Talent Quality-management System (TTQS) which is a training process including Plan, Design, Do, Review, and Outcome. TTQS provides the training institution and enterprise with the system to evaluate the staff performance and process education and training that carry out from the internal training (Lin, *et al.*, 2010). In the process of Design, core competency is used as the assessment index. By extracting information from databases, this study identified the following core competencies: communication and coordination, innovation and development, problem-solving, learning and development, and accepting responsibility.

The purpose of this study is as follows:

1. The results of the two-stage clustering analysis on how to effectively introduce TTQS is provided. By this research to enable those institutions that have implemented or are going to introduce the TTQS to effectively make their own plans and assessment indicators, thereby enhancing the overall human resource.
2. Evaluate the relationship between TTQS and core competency. By reviewing the implementation of the assessment mechanism, it shows that whether all the assessed hospitals have met the standards of each index. Within the further understanding on the TTQS assessment indicators in identification, the assessed institutions are able to observe the degree of correctness of using the core competency.
3. This study aims to bring the positive impact on Taiwan's medical centers, by improving employees’ core competency. Core competency is a general term for behavior, motivation, and knowledge related to work success (Byham and Moyer, 1996). Healthcare behavior involves high complexity and uncertainty. When medical employees perform healthcare behavior-based work, they must possess highly professional medical knowledge and skills to ensure the provision of safe patient care services. The importance of employees’ core competency allows the country to compete with the international community and continuously provide the research results for future implementation.

LITERATURE REVIEW

Talent Quality-Management System (TTQS)

The Talent Quality-Management System for Talent Development was specially introduced by the International Organization for Standardization (ISO) in "ISO10015 Quality Management - Training Guide" and the British Investors in People (IIP) promulgated in December 1999. Workforce Development Agency (WDA), Ministry of Labor, Taiwan planned to develop the Talent Quality-Human Resource Management System based on the five major facets i.e. Plan, Design, Do, Review and Outcome (PDDRO) to ensure the reliability and correctness of the training process and construct good systematic training environment for human capital investments (Lin *et al.*, 2010).

Started in 2005, the TTQS specifications began to take shape with the efforts of many experts, aiming at the training of reviewers, developing grading criteria with TTQS score cards and completing the pretest of ten organizations. Through constant modifications, the government aims to make TTQS to ensure the effects of Taiwanese enterprises' investment in human resource in a more complete manner. The systematic development of this system can enhance its application value and implementation quality to continuously review and amend the standards for training quality assessment.

With the introduction of the TTQS system and following the PDDRO standard (see Figure 1), it evaluates the results of employees' and enterprise's performance after the training program and integrate the results into the systematic plan that makes the education and training be more aligned with the business demands (Lin *et al.*, 2011). In addition, core competency is a crucial category of TTQS index.

Source: Corporation Training Network, Taiwan

Figure 1. TTQS Cycle

Core Competency

Spencer and Spencer (1993) contended that competency represents the underlying characteristics of a person, which not only relate to the person's work position, but also facilitate understanding the person's expected or real reactions and expressions influencing behavior and performance. The core competency varies according to the organizational strategy and culture and the circumstances, such as customer orientation, innovation, integrity, and so on. Vazirani (2010) refers it as capability to compete with the market for unique intellectual processes or product capabilities that refer to the collective learning or performance ability of the entire organization. Chen *et al*. (2012) further point out that enterprises should give priority to their core competency (such as traits and motivations of employees) based on the selection of appropriate candidates for their functions because the core competency is not easy to modify and develop.

Two-Stage Clustering

Cluster analysis is the procedure of objective classification based on the similarity and difference. The purpose of the classification is to facilitate the identification of the similarity between certain research subjects and group them in the same cluster on the basis of similar features. Subjects stay in the same cluster shows the high level of homogeneity.

Sharma (1996) recommends the categorization method like stratification and non-stratification. In the first stage of stratification, self-organization Map (SOM) method was implemented for clustering to decide the number of clusters. Then, those clusters were substituted in K-means in the stage two. The main reason of adopting the two-stage clustering is the drawback that once two subjects are clustered together in the 1st stage, they will always stay in the same cluster. K-means offset the drawback and reach the best number of clusters being homogenous in the clusters and heterogeneous clusters. While using the K-means, users have to keep trying locating the most appropriate number of clusters. As a result, using two-stage clustering reduces the cost of calculation and saves the time.

-Self-Organizing Map (SOM)

SOM is a type of unsupervised learning network proposed by Kohonen (1990). It adopts the idea that brains have the feature of *birds of a feather flock together*. While, network learning is completed, adjacent output

processing units have similar functions for clustering. As SOM makes clustering in the concept of nearest neighbor, the resultant clusters are seen with overlapping partitions. The resultant clusters of non-level-type clustering can produce non-overlapping partitions. Vesanto and Alhoniemi (2000) identify self-organizing map patterns by matching the vector values of the pattern elements and classifying the patterns.

-*K-Means*

K-means cluster algorithm was proposed by J. B. MacQueen in 1967, which is used to deal with the problem of data clustering. The relatively simple algorithm is widely used in the scientific field research and industrial applications. K-means method is frequently used in non-stratified cluster analysis (Buttrey and Karo, 2002). It requires predetermined number of clusters. Inappropriate number of clustering will lead to vague difference among clusters. In selecting clusters, it is recommended selecting different number of clusters for more algorithms to have reasonable explanation.

Both Abidi and Ong (2000) and, Vesanto and Alhoniemi (2000) proposed the technique of two-stage clustering as the clustering strategy for conducting data mining. This study adopts a two-stage clustering method (SOM and K-means) to carry out scientific and confirmatory comparison among groups of physicians, nurses and general administrative staff.

METHODOLOGY

This study focused on the relevance and correctness of one Taiwan's case hospital in promoting core competency through the TTQS-accredited medical institutes. This research urges other medical research institutes to import TTQS research index and advises the medical centers to create a database which can be used for academic research purposes. It is hoped that the database of the medical hospital can be helpful to get the optimal results, generate feedback and reference.

In this study, the status of training and operation of human resource in medical institutions was mainly learned from the database of medical institutions. The research was divided into two parts. First, a discriminant analysis was conducted for each cluster. The medical center introduced core competency to physicians, nurses and general administrations in order to explore the various groups of surgical, medical and administrative support during the review in the hope of finding out the core competency that were most

distinguishable among different levels of groups. By using SOM and K-means separately identifies the doctors, nurses and general administrative units of each department in the medical institution's database. In this study, we hope to see whether the core competency of the TTQS have been effectively internalized and implemented from the perspective of the department that has been imported into TTQS, so as to translate the content of the database into information with reference value.

Two-Stage Clustering Algorithm

The algorithm of two-stage clustering is as follows:

1. SOM: Kohonen used self-organization to conduct graphic recognition, where vector values in consistence with the graphic elements are used to classify the graphs.

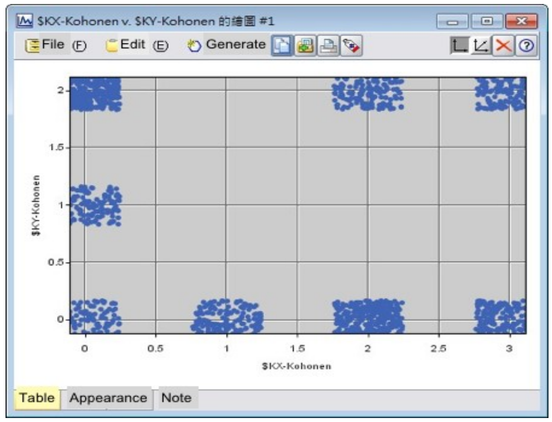
2. K-means: In terms of economy, simplicity and effectiveness, K-means is a method worth applying. It is a non-layer type clustering, not subject to the effects of outliers, errors in distance measurement and selection of method of distance calculation. The results of cluster are better if the initial point of the cluster is known. The K-means algorithm criterion function adopts square error criterion be defined as Equation 1:

$$E = \sum_{i=1}^{k} \sum_{p \in Ci} (p - mi)^2 \quad (1)$$

Where, *E* is total square error of all the objects in the data cluster, *p* bellows to data object set, *mi* is mean value of cluster *Ci.*

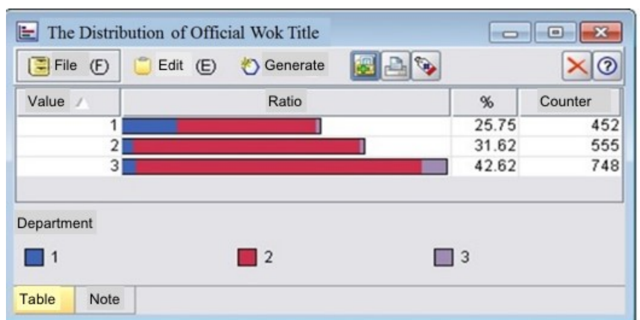
Comparison of Two Groups by Grouping Method

This study used two-stage clustering to conduct a confirmatory comparison. In order to determine the target of this study to explore the "promotion of the core competency of the medical center" and to understand the distribution of the medical library, this study explored and analyzed the existing field data to divide the functional units into several clusters, obtained similarities from the same cluster, and through the results of the analysis, via the unsupervised self-organizing map (SOM) network. In the drawing for the distribution of SOM clusters, being the numbers of initial clusters in the first stage, the numbers were eight, as shown in Figure 2, which shows the distributions of group numbers of SOM grouping. Using the two-stage clustering analysis results of K-means, the study obtained the distribution of each cluster composition, as shown in Figure 3.



Source: This study

Figure 2. SOM Grouping Scatter Diagram



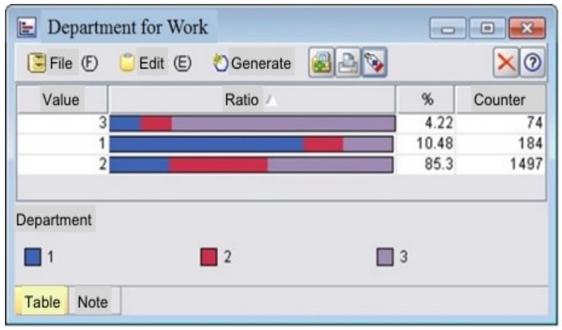
Source: This study

Figure 3. K-Means Cluster Composition Distribution

From "K-Means Distribution" in Figure 3, the blue portion of bar represents the Department of Surgery (D1), the red portion of bar represents the Department of Internal Medicine (D2), and the purple portion of bar represents the general administration (D3). The size of the cluster became more relevant to each other. In Figure 4, the size of the cluster became more explicit as it relates to each analysis. The distribution is as follows:

Each cluster shows the distribution proportion and it can be clearly observed. In Cluster-1, it includes the " doctors" , " nurses" and " administration staff" in medical department of hospital, which accounts for 10.48 percent. In Cluster-2, it involves " doctors" , " nurses" and " administration staff" in surgical

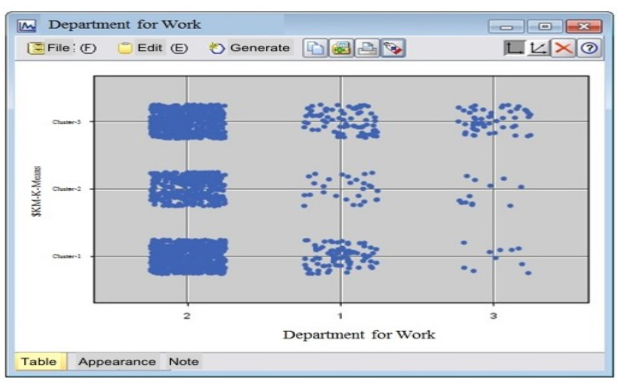
department of hospital, which makes up 85.3 percent. In Cluster-3, it includes " doctors" , " nurses" and " administration staff " in general Administration, which occupies 4.22 percent.



Source: This study

Figure 4. K-Means Cluster Composition Distribution

Then, the initial population of SOM was substituted into K-means. The K-means was used for the second-stage grouping of nodes on the map and is plotted (see Figure 5) as a two-stage clustering model of SOM-K-means cluster scatter.



Source: This study

Figure 5. Distribution of SOM-K-Means Clusters

As can be seen from Figure 5, the distribution of SOM-K-means scatter plots showed that the degree of consistency and the extent to which core competency is promoted. The analysis results are as follows:

1. When SOM is clustered into " D2" , K-means cluster " Cluster-1, Cluster-2, Cluster-3" falls within the range of this block. Since the entire core competency of the K-means also indicates that when a departmental unit falls into this block, awareness of its core competency is more strongly enforced to result in a higher level of implementation than that of the departmental units that carry out their core competency as a whole.

2. When the SOM is grouped into " D1" , the K-Means cluster " Cluster-1, Cluster-3" falls within the range of this block. Since the composition of this cluster has more core competency in implementing the core functional indicators (implementation and integrity) of operational performance, it can be seen that although their performance level is not as good as that of the department of surgery, they are relatively evenly distributed to the departmental units that carry out their core competency as a whole.

3. When the SOM is grouped into " D3" and the K-means cluster " Cluster-3" falls within the scope of this block; the core competency of this cluster is weak, which also indicates that the clustering promotes the core competency of very low level of consistency. Moreover, the departmental unit that falls on this block lies in the implementation of its core competency.

4. By adopting the SOM and K-means to analyze the competency gap between the employees, it helped the medical center to plan the suitable core competency for future human resource evaluation and management.

CONCLUSION

This study used Talent Quality-Management System (TTQS) database maintained by one case hospital in Taiwan for empirical analysis. First, the study conducted a discriminant analysis for hospital staff credentials stored on database and conducted a differential analysis of each cluster to determine the most distinguished core competency among doctors, nurses and general administrative groups. Second, the study learned about the importance of each of its departmental units on its core competency and proposed specific solutions to improve its operations to provide a reference base for future implementation of the core competency on the departmental units of medical institutions. Research results are described below:

1. Two-stage clustering method provided an informative breakdown of the classification of each group or

department. Using the two-stage clustering method (SOM and K-means) in our institute, we have observed a higher proportion of "Cluster 3" and observed it from the perspective of its core competency. We can further examine and compare the classification results of previous literature. The high level of analytical consistency of cluster analysis also demonstrates the effectiveness of the implementation of core competency, which has obvious benefits for the imported departmental units.

2. After analysis, doctors, nurses and general administration from the department of medicine showed a more consistent degree of the proportion. In the case of administrative support, the consistency of core competence among doctors, nurses and general administration is less adequate. The reason may be that departmental units at these two levels are unable to grasp the approach because of the way of introducing the core competency to the medical center. Therefore, the integrity and the implementation of the core competency are inadequate and lead to low-level evaluation of the impact of various departments and units.

3. This study concludes that the Talent Quality-management System (TTQS) and its implementation, so far, have a positive and immediate impact on the medical institutions in Taiwan. The system helped enhance human resources and build the core competency. It brings the state as a whole to attach importance in the core competency of human resource allowing the country to have the strength of the people to compete with the international community and to continuously provide the research results for future implementation.

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Sustainable Marketing Strategies: Creating Business Value by Meeting Consumer Expectation

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Sustainable Marketing strategies are unavoidable for 21st century businesses. Companies have started investing huge amount on these activities. Consumers do expect companies to adopt sustainable strategies but realizing one's need is the only drive for any consumer. Thus, there is gap between business sustainability practices and consumers' expectations. To address this gap, the paper proposes a conceptual framework for sustainability strategies that businesses must adopt. The proposed framework can be an important standpoint for businesses to meet consumers' expectations without compromising business value. The paper identified four major sustainable marketing strategies to be integrated into business practices.

Keywords: Sustainable marketing strategies, business value, consumer expectations, societal marketing, modern marketing

JEL: M19, M31

According to World Bank Report of 2015, economic growth of past two decades has lifted more than 660 million people out of poverty and has raised the income levels of millions more. Along with the development of emerging markets, the size and growth of affluent class in these markets has also improved. However, the development comes at an expense of environment and poor communities. Growth patterns have left hundreds of millions of people behind: 1.2 billion still lack access to electricity, 870 million are malnourished, and 780 million are still without access to clean, safe drinking water. This lopsided development has contributed too many environmental and social challenges (United Nations Environment Program, 2012). The emerging countries are new industrial economies and their economic, social and environmental infrastructure and systems are not ready to handle these challenges. Therefore, we can say that development is not on the track with need of growing population and resource constraints.

On the other hand, today's executives are dealing with a complex and unique social, environmental,

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technological and market trends (Whelan and Fink, 2016). Executives are still hesitant to put sustainability strategies to the core, as they believe cost outweighs benefits. This mistaken belief is quite contrary to bottom line benefits and academic research on sustainable marketing practices. Sustainability practices definitely have positive influence on business performance. Consumers are also becoming aware of the ecological pressure their reckless consumption creates. So they are also mindful about products and services they prefer. Apart from consumers, companies are also feeling the heat from social media users and non-governmental organizations (NGO's) oriented towards wellbeing of environment (Sulaymon, 2016). Thus, the concept of Sustainability has gained lot of attention from researchers and practitioners.

Sustainability is a symbolic concern of the modern world as there is constant fret of preserving the resources for the present and for future generation. Our Common Future (1987), was the first ever sustainability report published by World Commission on Economic Development (WCED). The report was also known as Brutland Report. This gave boost to further research on sustainability. Researchers have often signaled that business interests have caused rampant consumption patterns and it is responsibility of the business corporations to adopt societal marketing practices (Fuller, 1999; Gordon, Carrigan and Hastings, 2011; Heck and Yidan, 2013). The preservation of environment is primary responsibility of the businesses as Hawken (2007) remarks that: "because the corporations are the dominant institution on the planet, they must squarely address the social and environmental problems that afflict humankind".

UN Global Compact-Accenture (2014), reported view of 1,000 CEOs on sustainable business practices. According to this report, despite of growing commitment to environmental and broader sustainability issues, global economy is lagging behind the action needed to set society on a more sustainable pathway. Majority of the CEO's believe that Sustainability is the way for future success but termed it as 'frustrated ambition' because rewards are fewer compared to efforts. Also, report of McKinsey (2012), confirmed that many companies are successfully integrating principles of sustainability into their business practices. Yet, they are uncertain about the quantifiable value created out of it. Today, companies are investing tremendous amount on saving energy, developing green products, holding their employees to achieve long-term growth and create business value. On the other hand there is rising pressure from consumers and other

stakeholders about advancing expectations. The research shows that business investors and consumers do care about sustainable business practices. The sustainable performance of companies can act as a decision maker in consumer buying behavior. Heck and Yidan (2013) explained that adopting sustainable strategies creates win- win situation where as it will benefit both environment and company. However, relationship between sustainability strategies and business value is still not quantified. The primary challenge for any company is to create value for consumers as well as investors.

Purpose and Significance

Consumers purchase consideration for sustainable brands directly depends on how business contributes towards improving their quality of life. Brown's (2011) report suggests that post-recession, consumers priorities have changed. The report shows a high correlation between company's sustainability performance and meeting consumer's expectation. Company's sustainability efforts are successful when consumers' receive perceived value during purchase decision process. Businesses are the beacon for innovation and value creation, which can move society towards sustainable consumption. Based on previous literature, this paper aims to suggest sustainable business strategies for value creation. To successfully integrate sustainability vision in to business strategy, companies must incorporate four factors. The factors are: innovation, collaboration, communication and commitment. These strategies would make consumer believe about benefits of sustainable consumption (Obermiller et al., 2008; Beguerisse, 2013). Marketing not only has great potential to promote sustainable propaganda but can also foster sustainable lifestyle that contributes to businesses bottom-line. Consumers believe in sustainable business practices and do expect businesses to cope up with but their purchase decision reflects some contrasting practicality (Accenture, 2014). Consumers' purchase decisions are dependent on perceived value derived from products or services. To address concerns of consumers and businesses, purpose of this research is to suggest potential sustainability marketing strategies, which will target consumers' expectations through utility creation. The proposed model will help marketers to focus on consumer expectations without compromising business value.

In academic literature, sustainable marketing strategies that create value for business and consumers are

infrequent. Scientific investigation of sustainable marketing strategies is still in nascent stage. Accordingly, primary aim of this article is to provide insight into sustainable marketing strategies that will create business value without compromising consumers' needs. To fulfill the above objective, we present previous studies on sustainable marketing, consumer expectations and business value in the following section. Later, paper demonstrates relationship between Sustainable Marketing and value creation.

Why Focus on Sustainable Marketing Strategies

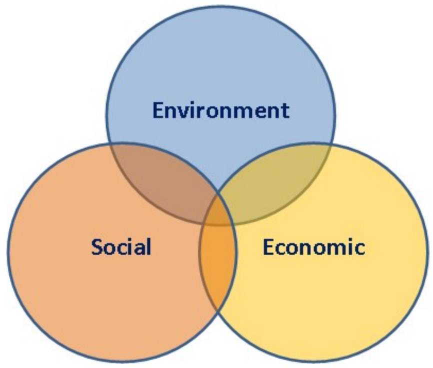
Work of Bowen (1953) is a stand point of the field recognized as Corporate Social Responsibility (CSR). CSR is a comprehensive set of strategies, policies and actions that are integral elements of business operations, embracing responsibility of past, present and future. Later, Brutland Report (WECD, 1987), coined the term Sustainability i.e. *"development that meets the needs of current generations without compromising the ability of future generations to meet their own needs"*.

The academic interest in sustainability dates back 1990s, mainly in micro, and macroeconomics, environmental accounting, psychology, sociology and policy. Most of research on sustainability was conducted in China and other emerging Asian economies. However, sustainability as a business strategy has taken the front seat post 2005, when Hargroves and Smith (2005), identified principles of sustainability for businesses. These principles include; dealing cautiously with risk, appreciation and value for nature, integration of environmental, social, and economic goals in planning ("triple bottom line"), and community participation in planning, commitment to best practices, continuous improvement and good governance. Sir John Elkington (1994) proposed the framework of Triple Bottom Line. The framework has three basic components of sustainable business: Social equity, economic sustainability and environmental sustainability (Figure 1).

The Triple Bottom Line is known as "People, Planet, Profit" and even by 3 E's "Equity, Economic, Environment" (Heck and Yidan, 2013). The model of Triple Bottom line turns company towards assessing organizational success by the virtue of sustainability performance. Though sustainability is not a new idea but businesses didn't understand the benefits and raised constant objections (Martin and Schouten, 2012).

Off late, businesses have realized that abstract and traditional approaches have failed to generate long term competitive advantage (Obermiller et al., 2008).

More than 43 years ago marketing Guru Philip Kotler (1972) pioneered the concept of societal marketing.



Source: Elkington (1994)

Figure 1: Triple Bottom Line

He intended to unite social and ecological issues into marketing strategies. Due to this fact societal marketing has become integral part of business rhetoric and scholarly literature (García-Rosell 2013; Kilbourne and Beckmann 1998; Montoro 2003). Sustainable marketing is a new addition towards the comprehensive development of marketing. Sustainable marketing includes the concepts of environment marketing, green marketing and societal marketing. Researchers consider them as more ethical forms of marketing businesses advance without exhausting environment and still fulfilling needs of present as well as future generations. Fuller (1999) defined sustainable marketing as “the process of planning, implementing, and controlling the development, pricing, promotion, and distribution of products in a manner that satisfies the following three criteria: (1) customer needs are met, (2) organizational goals are attained, and (3) the process is compatible with ecosystems”.

In 2009, Belz and Peattie, presented an iconic model which integrated conventional forms of marketing into sustainable marketing (Figure 2).

Belz and Peattie (2009) suggested that sustainability marketing requires long term orientation on relationship building rather than conventional short-term focus on transactions in modern marketing.

According to them, the entire process of marketing starting from market research to identify needs of the customer till loyalty building should have sustainability vision. The authors argued that to develop sustainable vision, it is important to merge previous sets of marketing ideas to create concept of

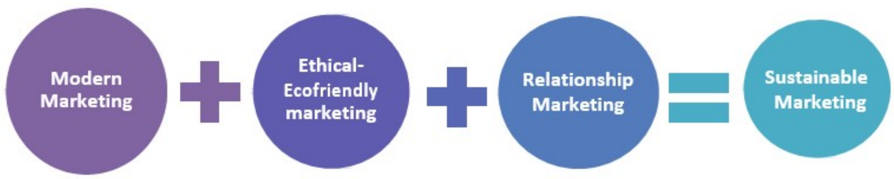
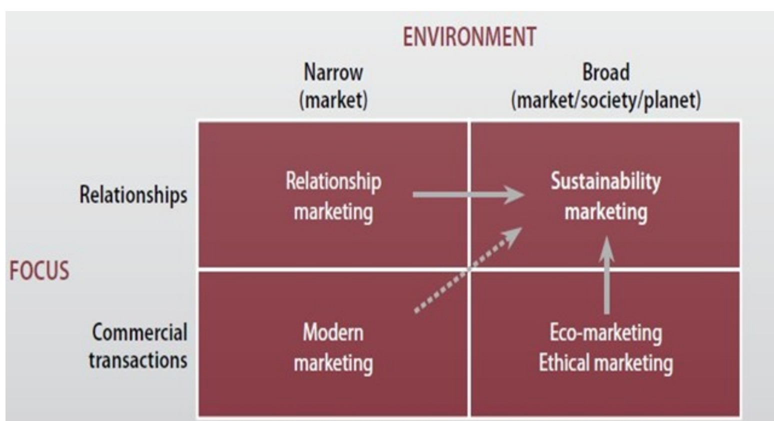


Figure 2: Modern to Sustainable Marketing

'*Sustainable Marketing*' (Figure 3). According to this model sustainable marketing is macro-marketing which influences entire system, such as, institutions, value chain or industries.



Source: Peattie and Belz (2010)

Figure 3. New Concept of Sustainable Marketing

Renowned companies like Exxon, Enron, McDonalds and Nike have miserably failed because consumers felt them as non-sustainable. On the contrary, Toyota' s synergy Drive, Volvo's safety and Body Shop's natural beauty, perception has created more revenue for the companies. However, sustainable business practices demand extra efforts and costs. Most often, cost of adopting these practices outweigh the benefits.

It is not difficult to find examples of companies that have incurred losses because of their sustainability practices. For example, Mazda invested 15 years developing a hydrogen rotary car engine that is yet to achieve commercial success.

Progressive Consumers' Expectations

In recent years, consumer interest in environmental friendly alternatives has risen dramatically, and so their expectations from businesses. Although there is an attitude-behavior gap, where there is an inconsistency between consumer attitudes and buying behavior (Grubor and Milovanov, 2017). According to Williams (2008), new generation consumers cannot be misled by any indoctrinations. In 1990' s there was 'green boom' where swathe of 'environmentally friendly' products and services swept the market. Acid rain, deforestation and the hole in the ozone layer were key concerns. Ozone depleting CFCs were banned and even products, which had never used CFC, were proudly labeled 'CFC free'. Understandably, many consumers felt cheated. Williams (2008) argued that the latest consumer focus on environment and sustainability was just recent turning of the wheel which is cyclical (and fickle). The bubble will soon burst like the 90's and consumers will soon stop worrying about environmental impact of their lifestyle. However, lubin and Esty (2010) argued that consumers are looking for companies and brands they feel have genuine commitments to environmental and social issues; and they're voting with their wallets. They debated that due to global financial and environmental concerns sustainability will prove to be a mega trend.

As suggested by Peattie and Belz (2010), it is devious to view characterize 'consumer' on the basis of their needs and wants only. The conventional view of consumer is quite narrow and abstracts them from rest of society and ecological system that they ultimately depend on. It is a bigger challenge for the companies today to engage, inform and persuade consumers based on their sustainability initiatives. Companies can only create business value by uniting their sustainability vision and twenty- first century consumers' expectations. According to the report of UN Global Compact-Accenture (2014), "the millennial consumer, coming of age economically and empowered by new technologies and social media, is driving new expectations of all institutions in society, especially business". Today's consumers not only expect direct utility from the products and services but they also want to improve their health and

community well-being. Moreover, due to economic cycle of global recession, consumers have become more 'Mindful'. Consumers no longer find joy in excessive spending and heedless consumption. Their buying pattern reflects a new trend of 'Mindful Consumption'; consumers buying fewer products and fewer brands, and being more considered in their choices (Seth et al., 2011).

Nestlé's effort to develop a Nutritional Profiling System (NPS) across their food and beverages, Intel's collaboration with USA Government to develop Smart Cities, Unilever's Sustainable Living Plan; all of these programs suggest that companies are creating a business case for their long term growth and competitiveness. However, according to an article by Zakes (2017) published in Huffington Post, consumers view green and sustainable products or services as 'more expensive and less effective'. This perception can be justified with many sustainable marketing strategists only focus on sustainability neglecting cost, efficacy and quality. Because of dynamism in consumer behavior traditional 4P's (Product, Price, Place, Promotion) of marketing mix essentially be replaced with '4Cs' of sustainability marketing mix; Customer solutions, Customer cost, Convenience and Communication (Belz and Peattie, 2009).

TRADITIONAL MARKETING MIX		SUSTAINABLE MARKETING MIX
Product	→	Customer solution
Price		Customer Price
Place		Convenience
Promotion		Communication

Source: Belz and Peattie (2009)

Figure 4. Traditional and Sustainable Marketing Mix

Moreno Beguerisse (2013), presented a study to explain the link between customer value generation and sustainability practices. Its theoretical framework identified 3 pillars necessary to understand sustainability practices. These are Collaboration, Communication and Innovation.

Sustainable Marketing and Business Value

Embracing sustainable marketing strategies demands holistic business transformation of business model as it demands engagement of multiple stakeholders without compromising expectations of consumers (Grubor and Milovanov, 2017). Given the fact that, consumers are at the center of any marketing activity and marketing is accused of relentless exploitation of planet resources, role of marketing manager is crucial. Thus, the road for businesses embracing sustainable marketing practices is rocky. There is still giant gap existing between corporations and investors for real value created out of sustainability practices (Alexander, 2015) United Nations Global Impact Accenture (2013) reported that 93 percent of CEOs consider sustainability is essential to their business strategy. The similar study in 2014, reported that company investors were interested in sustainability practices and 88 percent investors believed sustainable marketing practices were major source of competitive advantage. These views of investors and companies display an urgent need to show clearer links between sustainability and business value. Organizations are still skeptical about how significant sustainability marketing is for the industrial (B2B) and end users (B2C). Customers only care about price, delivery and functionality issues of the product. However, new era marketer argue that sustainability marketing should be part of companies marketing mix to reduce wastage of time spend in operational and delivery phase. This will eventually help companies to deal better with customer and gain value for business. World Business Council for Sustainable Development (WBCSD) report also stated that sustainable marketing is an inclusive approach and not a sole responsibility of marketing department. An inclusive approach recognizes action from all the people of organization involved in decision making.

Heck and Yidan (2013) strove to explore the impact of sustainable marketing practices on brand equity and consumer behavior. The researchers' found that consumers have high regards for the companies involved in sustainable marketing practices. But the research could not show any tangible impact of these practices on consumer purchase decision. The study inferred that consumers are aware of ideas like societal marketing and green marketing but they are unsure whether these practices influence their purchase decisions.

Organizations do not merely want their investment in sustainable marketing practices to be politically correct discourse. Companies and investors also want to generate business value out of it. Crittenden

(2010) highlighted the scope of research to decide whether a dollar investment in sustainability initiatives returns more or less than one dollar in benefit to the company and investors. According to Alexander (2015), companies and investors need specific approaches/techniques that quantify sustainability value to business and society.

Sustainable Marketing for Business: Benefits

-Differentiates the Brand

Companies with improved environmental and social performance receive better positioning against competitors. If sustainability strategies are well executed it results in cost saving, efficiency and improved organizational performance (Reutlinger, 2012). Innovation in production process requires heavy investment but returns from sustainable processes are much better. Sustainability in production process, packaging, distribution and promotion reduces cost and increases efficiency. This is the only approach in highly competitive market to create differentiation (Martin and Schouten, 2012; Reutlinger, 2012).

Danone has been working on a project with added value for health and the environment, which also cushions higher milk prices through increased productivity in dairy farming. Centered on raising milk quality with flax in animal feed, Danone partnered with Bleu Blanc Coeur, a European association dedicated to health-oriented farming. Adding flax to feed increases yields by an average of 10 percent. But it also helps to increase cows' fertility and bolster their natural defenses. Milk from cows fed with flax offers health benefits for consumers, since its fat content is lower and it is rich in omega-3 fatty acid. The product differentiates, not just by its healthy characteristics but it benefits the environment, since flax crops require limited quantities of water and pesticide, and on average cows fed on flax produce 20 percent less of the greenhouse gas methane (Danone, 2008).

-Increased Customer Retention and Brand Loyalty

When companies indulge in ethical form of marketing, consumer do feel valued and develop brand loyalty (Oliveira and Sullivan, 2008). Company's concern towards society and environment does change consumer behavior leading to increase brand equity. Consumers choose the product based on the

available information. Sustainable marketing plays significant role in strengthening awareness about society. Evidences suggest that consumers are willing to pay premium when they realize importance of sustainable products and services (Heck and Yidan, 2013).

According to research conducted by European Maia TV research (published in William, 2008), when Sony introduced LCD Bravia TV consumers were more interested in its ‘Eco Friendly’ status than rest of the features.

Sustainability Marketing Strategies: Creating Value for Customers

Smith and Burton (2005), working at world’s leading research and advisory firm Gartner, developed organization collaboration framework to develop business strategy and achieve business goals. They have defined collaboration as, “people working together on non-routine cognitive work. This activity is about behavior, work habits, culture, management, and business goals and value”. According to Munasingh (2009) a corporation collaborating with other bodies/NGOs/organizations for overall betterment towards sustainability favorably affects consumer decision. IKEA managed to create desired image in the minds of customer with sustainability preposition. This enforced the members of IKEA’s supply chain to act according to greener initiatives and use 90 percent recycled paper. According to CSR Middle East (2014), companies’ associations to benefit its employees is a likely indicator to affect consumer decision. According to Maggs (2014), company’s collaboration with the government bodies has more influence on consumer decision making and supports overall sustainability efforts. Consumers are satisfied if the businesses care about improving the problems of developing countries and provide sustainable investments for the country. Also, a study conducted by Cambridge Institute for sustainable Leadership (2015), reports that a corporation collaborating to work on the environmental issues (deforestation and carbon footprint) affects satisfaction levels of the customers.

According to Gelder (2015), businesses need to use multiple communication platforms to create awareness about issues like human rights. This has positive influence on customers’ decision. García-Rosell (2013) suggested that product/service development is the most crucial component contributing to

sustainability value and thus communicating their commitment towards sustainability to its employees, customers, suppliers and other stakeholders. Correspondingly, Maj Munch Anderson (2006) stated that if an organization incorporates and highlights the importance of sustainability then it is more likely to affect customers' decision in favor of product or service. Also, study conducted by Nidomolu (2009) discovered a positive correlation between customer motivations of using brands and companies creating awareness about sustainability. Unfailing communication between various stakeholders and corporation creates transparency and eventually helps to develop favorability towards brands. Peattie and Belz (2010) asserted the strong need of two-way communication with customers. According to them,

"Without effective communication it will be almost impossible to make consumers aware of sustainability solutions that have been developed and how they will integrate with consumers' life-styles and meet their needs" [Peattie and Belz (2010), p.16].

Conventionally, marketing management was perceived as a process that identifies and satisfies needs of consumers to earn profit. Emery (2012) cited that modern marketing function is to build strong brand by innovation with customer centric approach. According to Moreno- Beguerisse (2013), organizations with sustainability initiatives invest and offer more innovative products than the one's not complying with sustainability value. Innovation helps organizations to leverage their sustainability efforts and creates better products and services. The innovation should be a user-centered design (UCD) which is more likely to affect customers' decision making (Bill, 2007). Companies need to combine marketing and, social and environmental innovation to gain competitive advantage. Here, technology has a key role to play. Organizations swiftly ought to transit towards technological advancement. These advancements eventually result in higher operational efficiency, cost reduction and create competitive advantage. However, marketers need to recognize that product/service will get sustainability value when it meets consumer expectations.

According to Rondenelli (2004), organizations, constantly need to display sustainability practices commitment by empowerment of employees and other stakeholders. Long-term vision of sustainability

should be pervasive in all the strategic decisions. Sustainable marketing practices should be considered as an essential element rather than optional add-on. As suggested by Lubin and Esty (2010), sustainable marketing is a megatrend and is here to stay so commitment towards sustainability is a key driver to commercial success. However, because of less clarity about the results of sustainable marketing practices companies lose their motivation and commitment. However, accurate tools and techniques with consistent commitment will surely provide desirable results. Emery (2012) mentions that corporate social responsibility precedes the action of sustainable marketing. Thus, the success of sustainable marketing often depends on organization's commitment towards well-being of community and other stakeholders. Minton et al. (2012) developed a quantitative framework to examine sustainable motives of consumer in social marketing context. They proved the strong influence of social media communication on sustainable behavior of consumers. Since, sustainability is innately social, social media communication can encourage consumers to self-select sustainable products and services.

IMPLICATIONS

-Theoretical Implications

21st century Millennials are difficult to convince. It is not easy for companies to engage, inform and persuade them for considering company's sustainability efforts. Today's generation expectations are influenced by powerful media and entertainment business. Their expectations reflect more of material needs than rational needs. This situation is problematic for companies that want to adopt sustainable strategies. Consumers are ready to pay added price if they are convinced about the benefits gained from consumption. However, as discussed earlier there is still huge gap between "show me the money" attitude of investors and real business value generated from sustainable marketing practices.

Several scholars have suggested the need to understand how corporations can generate business value by sustainable marketing practices and yet fulfill consumers' expectations (Crittenden et al., 2010; Heck and Yidan, 2013). The notion of adopting sustainable business strategies and maximizing value for

consumers needs paradigm shift. Prothero and McDonagh (2014) affirmed that consumer attitude; behavior and decision-making are critical in understanding success of sustainable marketing practices. For instance, what difference does sustainability marketing practices make in consumer decision-making? How can we get consumer based on sustainability marketing practices? These questions are unanswered in the literature so far. This research sets out to understand intertwined sustainable business strategies that would live up to consumers' greater expectations. The focus of this research is to develop a theoretical framework which considers to contribute sustainable business strategies namely; *Innovation, Collaboration, Communication, and Commitment* towards fulfillment of consumers' expectation.

Now the major responsibility that lies on marketer is to make consumer feel connected to something more "real" than the artificial world that surrounds them. This means reconnecting with nature and other people. Consumers expect more from their outlay than buying products and services. This feeling aggravates consumers' belief that companies are failing to meet their expectations. To offer better value to consumers and secure a competitive advantage, companies must assume *Innovation, Collaboration, Communication, and Commitment* as important sustainability business strategies.

Figure 5 suggests potential sustainable marketing activities, which may increase business value by fulfilling consumers' expectation.

-Managerial Implications

Traditionally, marketing has been painted as a 'Bad Guy' profession for impelling and glamorizing consumption. Producing goods and services does exhaust resources, which has harmful effect on environment and society as a whole. As influencers, marketers need to develop products and services that make a significant difference both to their customers, the planet and to the bottom line. This will eventually create opportunity for marketers to create competitive advantage and business value.

As proposed in framework, there are four core dimensions of successful sustainable marketing practices; Innovation, Collaboration, Communication and Commitment.

First companies must prompt **innovation** in all their spheres. To meet broader needs of consumers and align with business value, companies should incorporate innovation in products, services and process. If the innovation genuinely improves lives, health and community well-being then consumers develops deeper connection with companies. These innovations should lead to efficacy and cost saving for consumers and organizations. Popular examples include hybrid cars, LED or CFL bulbs that meet consumers' expectation without compromising the organizational performance.

Figure 5. Proposed Sustainability Strategies for Fulfillment of Consumers' Expectation and Generating Business Value

Second, companies can develop greater trust and loyalty if they set in **collaboration** with NGO's/ Government and other supply chain partners. An example of such collaboration is Coca-Cola and the World Wildlife Federation. These collaborations certify organizations' claims of sustainability and are well beyond legal requirements. For example, H&M's partnership with DoSomething.org to launch the Close the Loop College Cup competition, incentivizing U.S. college students and faculty to innovate means to higher recycling rates for clothing.

Third, companies constantly need to keep their customers engage through proper **communication**. Companies must regularly update consumers about their efforts towards social responsibility and environmental mitigation. Corporations must clearly display their purpose from 'marketing' to 'mattering'. The evidences suggest that (Heck and Yidan, 2013) consumers are unaware of the social, ethical and environmental performance of the organizations. Consumers do wish to know more about companies' sustainable practices claim. Active use of marketing communication and broader PR strategies help to create tangible impact on consumers' perception about the brand. Marketing communication should encourage moderate consumption without compromising on bottom line of the business value. Compelling examples of this include: Mud Jeans, which leases jeans instead of selling them, encouraging customers to swap or return them after use; Terracycle, which excels at 'making garbage great' by converting used packaging and other waste to various branded assets

Innovation	Product/ Process/ Marketing (with advanced technology)
Collaboration	NGO's/ Government/other organizations Environment protection campaigns
Communication	Constant communication with stakeholders and upholding transparency
Commitment	Constant engagement with consumers and employees

Table 1: Sustainable Marketing Strategies

Last, companies must show continual **commitment** towards sustainability practices, employees and consumers for seeking public trust. For instance, Home Depot, one of the world's largest sellers of certified wood products holds up to sustainability practices by promising that harvested trees will be replenished. This commitment is difficult to measure; still Home Depot takes on to educate consumers

about effects of their buying behavior. The company informs them that on an average every American home consumes enough wood and paper products equivalent to 64 trees each year (Home Depot, 2009). Another example is LEGO's Sustainable Materials Centre, a commitment to tapping all employees of the company in an effort to come up with alternative, non-fossil-based raw materials to manufacture LEGO toys and packaging.

CONCLUSION

Researchers have repeatedly pointed the need to expand sustainability base from environment to business. Businesses can leverage their vision of sustainable practices in the form of competitive advantage, brand loyalty, risk mitigation and cost reduction. Researchers proved that sustainability practices adopted by a firm may gain more investors by the firm. It can also lead to an increased market value of firm. According to Bartlett (2012), social performance of a firm is still likely to derive the financial performance of the firm. Still much research is needed to prove positive correlation between the two. The recent economic, financial and environmental crisis calls for more of sustainable social development rather than mere economic growth. Businesses can steer this sustainable development with socially responsible, environmental mitigation and purposeful strategies. With public concern around, environmental issues growing, tougher regulations sustainable marketing practices are unavoidable.

Marketers have adopted sustainable practices to avoid criticism from stakeholders but they are still unsure about consumer buying decision and business value gained. Sustainable marketing strategies can earn revenue when companies frame their marketing 4P's in a manner that consumers feel empowered while using the products/services. Businesses need to display clear purpose and build trust to create long-term customer engagement. Internal and external stakeholders view sustainable-marketing practices that cause business value as more reliable.

While companies are still wondering how to carry out sustainable marketing strategy to gain trust of stakeholders, consumers and society as a whole. Therefore, role of marketer is to communicate

company's genuine commitment to responsible and sustainable marketing practices. Marketers also need to act as 'collaborators' within and outside organization to ensure the promises on sustainable marketing are honored.

This article illustrates that sustainability is a main stream issue and cannot be isolated from business strategies. Those companies that proactively make sustainability core to business strategy will drive innovation and engender enthusiasm and loyalty from employees, customers, suppliers, communities and investors. Companies need to understand that they and society are inherently interdependent. This kind of mindset of not focusing only on short-term economic gains, as is usually the case with most non-sustainable/conventional business, allows sustainable business to be able to meet the needs of today's customers without compromising on the needs of the future generation. Consumer will always be drawn to brands they trust, that are different from the rest, innovative, appeal to emotions and intelligence.

Thus, the proposed sustainability marketing strategies can help marketers in gaining maximum business value from their sustainability initiatives. Empirical research to quantify the relationship between the proposed sustainability marketing practices and consumer expectations has a great opportunity for future research. The proposed model is based on existing literature and has potential to predict new phenomena. The proposed framework can be operationalized and tested to increase generalizability and validity.

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